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Provide defining equations (PDEs, etc) valid near one or more grid boundary segments in a generalized coordinate system, of a selected grid system, where each defining equation has at least two independent Cartesian coordinate variables and has at least one generalized coordinate as a dependent variable — 11

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Provide boundary constraints for the grid system, valid near one or more boundary segments, where a decay parameter for at least one generalized coordinate dependent variable is determined as part of a solution of the defining equations, rather than being initially prescribed — 13

↓

Provide defining equations and selected boundary conditions for a steady state heat transfer problem, on a long thin fin, having at least two independent coordinate variables, and providing a correspondence between variables the at least two independent coordinate variables for the grid system, near at least one grid boundary segment with the at least two independent coordinate variables for the heat transfer problem — 15

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Provide a correspondence between a selected power of at least one heat transfer coefficient for the heat transfer problem and at least one decay parameter for the grid system near the at least one grid boundary segment — 17

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Provide a solution of the grid system near the at least one grid boundary segment that incorporates the at least one boundary constraint comprising the at least one decay parameter determined for the grid system — 19
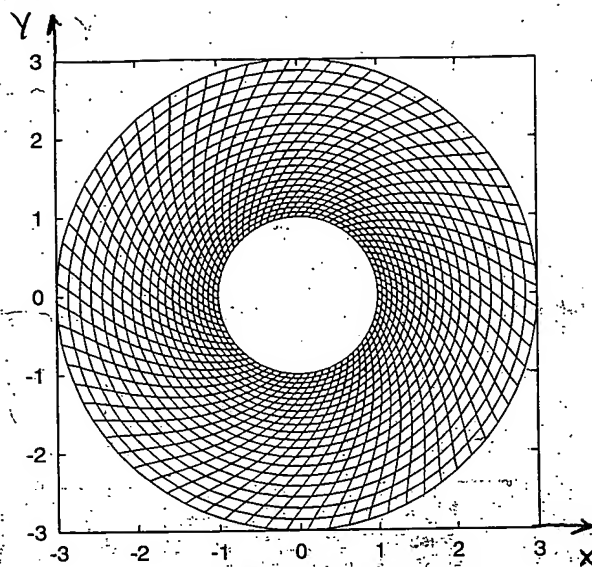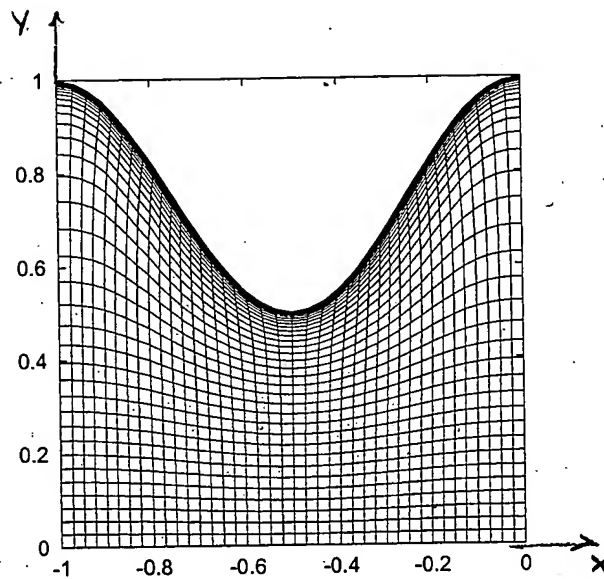
FIG. 1

FIG. 2

FIG. 3